

LISTING AND AMENDMENT OF THE CLAIMS:

1. – 19. (Canceled)

20. (Currently amended) A computer mediated method of identifying DNA sequences that control the expression of different collections of genes in a genome comprising detecting by computer, one or more pairs of first and second non-adjacent DNA sequence data which represents a double stranded DNA molecule that could bind to one RNA molecule such that a first RNA sequence in that RNA molecule can bind to a first non-adjacent DNA sequence data and a second RNA sequence data in that RNA molecule can bind to a second non-adjacent DNA sequence where the RNA sequences are adjacent sequences and outputting the results thereof to a utilization facility.

21. (Previously presented) A computer mediated method of identifying DNA sequences that control the expression of different collections of genes in a genome comprising, by computer, detecting, changes in connectron behavior in the genome as a function of changes in the sequence of the genome and outputting the results thereof to a utilization facility.

22. – 35. (Canceled)